We claim:

1. A method for coding a speech signal comprising:

estimating a spectral content of a speech signal;

5   selecting a preferential coding algorithm from an assortment of coding

algorithms based on the estimated spectral content of the speech signal;

coding the speech signal in accordance with the selected coding algorithm,

where the selected algorithm may control the operation of at least one of a pre-

processing filter, a post-processing filter, a coding control coefficient, a weighting

10   filter, a synthesis filter, and a quantization table.

2. The method according to claim 1 wherein the estimating determines if the

spectral content of the speech signal is representative of a defined reference spectral

response.

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3. The method according to claim 1 wherein the selection of the preferential coding

algorithm comprises selection of a desired filter response of the pre-processing filter,

the desired filter response configured to enhance perceptual voice quality of the

coded speech signal based on the estimated spectral content.

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4. The method according to claim 1 wherein the selection of the preferential coding algorithm comprises selection of a desired filter response of the post-processing filter, the desired filter response configured to enhance perceptual voice quality of the coded speech signal based on the estimated spectral content.

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5. The method according to claim 1 wherein the selection of the preferential coding algorithm comprises selection of a desired filter response of the weighting filter, the desired filter response configured to enhance perceptual voice quality of the coded speech signal based on the estimated spectral content.

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6. The method according to claim 1 wherein the selection of the preferential coding algorithm comprises selection of a desired filter response of the synthesis filter, the desired filter response configured to enhance perceptual voice quality of the coded speech signal based on the estimated spectral content.

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7. The method according to claim 1 wherein the selection of the preferential coding algorithm comprises selection of a desired filter response of at least one of the synthesis filter and the weighting filter of an adaptive codebook section of an encoder.

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8. The method according to claim 1 wherein the selection of the preferential coding

algorithm comprises selection of a desired filter response of at least one of the

synthesis filter and the weighting filter of a fixed codebook section of an encoder.

5   9. The method according to claim 1 wherein the quantization table comprises at

least one of an adaptive codebook section and a fixed codebook section of an

encoder.

10. A method for coding a speech signal, the method comprising:

10   estimating a spectral content of a speech signal;

        varying at least one coding parameter based on the estimated spectral content

of the speech signal;

        coding the speech signal in accordance with the varied coding parameter, the

varied coding parameter associated with at least one of a preprocessing filter, a post-

15   processing filter, a coding control coefficient, a weighting filter, a synthesis filter,

and a quantization table.

11. The method according to claim 10 wherein the estimating determines if the

spectral content of the speech signal is representative of a defined reference spectral

20   response.

12. The method according to claim 10 wherein the variation of the at least one

coding parameter comprises selection of a desired coding parameter of the pre-

processing filter, the desired coding parameter configured to enhance perceptual

5   voice quality of the coded speech signal based on the estimated spectral content.

13. The method according to claim 10 wherein the variation of the at least one

coding parameter comprises selection of a desired coding parameter of the post-

processing filter, the desired coding parameter configured to enhance perceptual

10   voice quality of the coded speech signal based on the estimated spectral content.

14. The method according to claim 10 wherein the variation of the at least one

coding parameter comprises selection of a desired coding parameter of the weighting

filter, the desired coding parameter configured to enhance perceptual voice quality of

15   the coded speech signal based on the estimated spectral content.

15. The method according to claim 10 wherein the variation of the at least one

coding parameter comprises selection of a desired coding parameter of the synthesis

filter, the desired coding parameter configured to enhance perceptual voice quality of

20   the coded speech signal based on the estimated spectral content.

16. The method according to claim 10 wherein the variation of the at least one

coding parameter comprises selection of a desired coding parameter of at least one of

the synthesis filter and the weighting filter of an adaptive codebook section of an

5   encoder.

17. The method according to claim 10 wherein the variation of the at least one

coding parameter comprises selection of a desired coding parameter of at least one of

the synthesis filter and the weighting filter of a fixed codebook section of an

10   encoder.

18. The method according to claim 10 wherein the quantization table comprises at

least one of an adaptive codebook section and a fixed codebook section of an

encoder.

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